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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,017	09/30/2003	Myoung-Kee Baek	8734.240.00 US	2379

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MCKENNA LONG & ALDRIDGE LLP  
1900 K STREET, NW  
WASHINGTON, DC 20006

EXAMINER
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TALBOT, BRIAN K

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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04/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/674,017	<b>Applicant(s)</b> BAEK ET AL.	
	<b>Examiner</b> Brian K. Talbot	<b>Art Unit</b> 1792	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/11/08 has been entered.
2. The non-entered amendment filed 1/11/08 has been considered and entered per filing the RCE. Claims 1-13 remain in the application.
3. In light of the amendment filed 2/11/08, the 35 USC 102(b) rejection and 35 USC 103 rejections have been withdrawn. However, the following 35 USC 103 rejection has been necessitated by the amendment.
4. The amendment filed 2/11/08 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

“the master is separately formed” is not found anywhere in the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

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5. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. See above for explanation.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Claim Rejections - 35 USC § 103***

7. Claims 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al. (5,403,616) in combination with Miyahara et al. (6,755,127).

Hattori et al. (5,403,616) teaches a method of forming patterned transparent conductive film. The patterning process comprises forming a masking pattern (2) on a substrate (10), applying the coating layer (3), heating the coating layer and the mask to set the coating layer and remove the mask to form the patterned layer (abstract, Figs. 1a-1e, 2a-2e and col. 2, line 60 – col.

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3, line 65). Hattori et al. (5,403,616) teaches the process utilized for LCD devices (col. 1, lines 9-25). The glass substrate can have a coating of silica thereon prior to the application of the patterned coating layer (examples). The coating layer can be applied by spin coating, dip coating or roll coating (col. 4, lines 41-64). Hattori et al. (5,403,616) teaches physically removing the masking pattern by ultrasonic cleaning or gas jet of air (col. 4, lines 28-40).

Hattori et al. (5,403,616) fails to teach a master being separately formed and separable from the substrate. In addition, the use of a doctor blade to planarize the resist coating.

Miyahara et al. (6,755,127) teaches a screen printing method whereby a mask plate (12) is displaced above the substrate (3) and is contacted with a squeegee head (13) to contact the mask plate (12) and the substrate (3) thereby applying a pattern to the substrate (3) through the mask plate (12). The mask plate (12) is then released back to a position above the substrate (3) (Figs. 4-5 and col. 7, line 40 – col. 9, line 10).

Therefore, it would have been obvious for one skilled in the art at the time the invention was made to have modified Hattori et al. (5,403,616) process by substituting a “displaced mask” as evidenced by Miyahara et al. (6,755,127) for the mask of Hattori et al. (5,403,616) with the expectation of achieving similar success.

Regarding claims 4,11 and 13, the claims recite the master being separated from the substrate by a few microns. It is the Examiner’s position that this “distance of separation” is a “result effective variable” which can be optimized through routine experimentation as to the desired distance require to produce the desired result. If Applicant disagrees that the "distance is critical" and unexpected, the Examiner invites Applicant to supply a showing of unexpected results regarding this variable.

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8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al. (5,403,616) in combination with Miyahara et al. (6,755,127) further in combination with Applicant's admitted state of the art (specification pg. 2-5 and Figs. 1-2).

Hattori et al. (5,403,616) in combination with Miyahara et al. (6,755,127) fails to teach and etching layer being metal.

Applicant's admitted state of the art (specification pg. 2-5 and Figs. 1-2) teaches that gate electrodes, drain electrodes and pixel electrodes are formed on a glass substrate for LCD manufacture.

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified over Hattori et al. (5,403,616) in combination with Miyahara et al. (6,755,127) process by including a metal electrode layer to be etched as evidenced by Applicant's admitted state of the art (specification pg. 2-5 and Figs. 1-2) with the expectation of achieving similar success, i.e. a patterned layer.

### ***Response to Amendment***

9. Applicant's arguments filed 2/11/08 have been fully considered but they are not persuasive.

Applicant argued that the prior art fails to teach a master formed separately and being separable from the substrate.

Miyahara et al. (6,755,127) teaches this limitation as noted above. Miyahara et al. (6,755,127) teaches a mask being displaced above a substrate which is separately formed and separated from the substrate after pattern coating.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

//Brian K Talbot//  
Primary Examiner, Art Unit 1792

BKT

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